

I claim:

1.

A railroad grade crossing for extending a roadway across a pair of parallel, spaced-apart rails which are supported upon spaced-apart ties, comprising:

a concrete gauge panel extending substantially between the rails;

said gauge panel having a top surface which is substantially coplanar with the roadway;

said gauge panel having opposite sides and opposite ends;

said gauge panel having elongated gauge seals on each side thereof which are positioned adjacent the rails;

each of said gauge seals having inner and outer sides and opposite ends;

each of said gauge seals having an elongated cavity formed therein inwardly of the inner side thereof which extends between the ends thereof;

said gauge panel having metal angle members case in said upper opposite sides;

each of said metal angle members including a vertical leg portion;

each of said vertical leg portions of said metal angle members having a plurality of horizontally spaced-apart bolt members secured thereto and extending therefrom through the inner side of the respective seal and into said cavity thereof;

at least one elongated metal retainer positioned in each of said cavities;

each of said retainers having inner and outer sides;

each of said retainers having a plurality of horizontally spaced-apart openings formed therein;

each of said retainers having a plurality of internally threaded nuts welded thereto at
1 each of said openings and in alignment therewith;
said bolt members being threadably secured to said nuts.

2.

5 The railroad grade crossing of claim 1 wherein each of said cavities is generally
channel-shaped.

3.

The railroad grade crossing of claim 2 wherein said retainers are generally
channel-shaped in section.

4.

10 The railroad grade crossing of claim 2 wherein each of said cavities comprises
an upper cavity portion having inner and outer ends, an intermediate cavity portion
extending downwardly from said outer end of said upper cavity portion, and a lower
15 cavity portion, having inner and outer ends, extending from the lower end of said
intermediate cavity portion towards said inner side of the respective seal.

5.

20 The railroad grade crossing of claim 4 wherein said retainers are generally
channel-shaped in section.

6.

25 The railroad grade crossing of claim 5 wherein each of said retainers includes an
upper flange which is received by said upper cavity portion, a web which is received by

1 said intermediate cavity portion, and a lower flange which is received by said lower
cavity portion.

7.

5 The railroad grade crossing of claim 6 wherein said nuts are secured to said
webs of said retainers.

8.

The railroad grade crossing of claim 7 wherein said webs have inner and outer
sides and wherein said nuts are welded to said inner side of said webs.

9.

10 A railroad grade crossing for extending a roadway across a pair of parallel,
spaced-apart rails which are supported upon spaced-apart ties, comprising:
a concrete gauge panel extending substantially between the rails;
said gauge panel having a top surface which is substantially coplanar with the roadway;
15 said gauge panel having opposite sides and opposite ends;
said gauge panel having elongated gauge seals on each side thereof which are
positioned adjacent the rails;
each of said gauge seals having inner and outer sides and opposite ends;
each of said gauge seals having an elongated cavity formed therein inwardly of the
20 inner side thereof which extends between the ends thereof;
said gauge panel having metal angle members case in said upper opposite sides;
each of said metal angle members including vertical leg portions;

each of said vertical leg portions of said metal angle members having a plurality of
1 horizontally spaced-apart bolt members secured thereto and extending therefrom
through the inner side of the respective seal and into said cavity thereof;
at least one elongated metal retainer positioned in each of said cavities;
5 each of said retainers having inner and outer sides;
each of said retainers having a plurality of horizontally spaced-apart openings formed
therein;
each of said retainers having a plurality of internally threaded nuts welded thereto at
each of said openings and in alignment therewith;
10 said bolt members being threadably secured to said nuts;
a pair of concrete field panels, one of which extends between each rail and the
roadway;
each of said concrete field panels having an inner end, an outer end, a top surface
15 which is substantially coplanar with the roadway, and a bottom surface which is
supported upon the ties;
said field panels having elongated field seals at their inner ends thereof which are
positioned adjacent the associated rail;
20 each of said field seals generally having an inner end, an outer end, an upper end, and
a lower end;
each of said field seals having an elongated cavity formed therein inwardly of the inner
side thereof which extends between the ends thereof;
the upper inner end of said field panels having a metal angle member cast therein;

each of said metal angle members including vertical leg portions;

each of said vertical leg portions of said metal angle members having a plurality of horizontally spaced-apart bolt members secured thereto and extending therefrom through the inner side of the respective seal and into said cavity thereof;

at least one elongated metal retainer positioned in each of said cavities;

each of said retainers having inner and outer sides;

each of said retainers having a plurality of horizontally spaced-apart openings formed therein;

each of said retainers having a plurality of internally threaded nuts welded thereto at each of said openings and in alignment therewith;

said bolt members being threadably secured to said nuts.

10.

The railroad grade crossing of claim 9 wherein each of said cavities is generally channel-shaped.

11.

The railroad grade crossing of claim 10 wherein said retainers are generally channel-shaped.

12.

The railroad grade crossing of claim 10 wherein each of said cavities comprises an upper cavity portion having inner and outer ends, an intermediate cavity portion extending downwardly from said outer end of said upper cavity portion, and a lower

1 cavity portion, having inner and outer ends, extending from the lower end of said
intermediate cavity portion towards said inner side of the respective seal.

13.

5 The railroad grade crossing of claim 12 wherein said retainers are generally
channel-shaped.

14.

10 The railroad grade crossing of claim 13 wherein each of said retainers includes
an upper flange which is received by said upper cavity portion, a web which is received
by said intermediate cavity portion, and a lower flange which is received by said lower
cavity portion.

15.

15 The railroad grade crossing of claim 14 wherein said nuts are secured to said
webs of said retainers.

16.

The railroad grade crossing of claim 15 wherein said webs have inner and outer
sides and wherein said nuts are welded to said inner side of said webs.

17.

20 A railroad grade crossing for extending a roadway across a pair of parallel,
spaced-apart rails which are supported upon spaced-apart ties, comprising:
a pair of concrete field panels, one of which extends between each rail and the
roadway;

1 each of said concrete field panels having an inner end, an outer end, a top surface
which is substantially coplanar with the roadway, and a bottom surface which is
supported upon the ties;

5 said field panels having elongated field seals at their inner ends thereof which are
positioned adjacent the associated rail;

each of said field seals generally having an inner end, an outer end, an upper end, and
a lower end;

each of said field seals having an elongated cavity formed therein inwardly of the inner
side thereof which extends between the ends thereof;

10 the upper inner end of said field panels having a metal angle member cast therein;

each of said metal angle members including vertical leg portions;

each of said vertical leg portions of said metal angle members having a plurality of
horizontally spaced-apart bolt members secured thereto and extending therefrom

15 through the inner side of the respective seal and into said cavity thereof;

at least one elongated metal retainer positioned in each of said cavities;

each of said retainers having inner and outer sides;

each of said retainers having a plurality of horizontally spaced-apart openings formed
therein;

20 each of said retainers having a plurality of internally threaded nuts welded thereto at
each of said openings and in alignment therewith;

said bolt members being threadably secured to said nuts.

18.

1 The railroad grade crossing of claim 17 wherein each of said cavities is generally channel-shaped.

19.

5 The railroad grade crossing of claim 18 wherein said retainers are generally channel-shaped.

20.

10 The railroad grade crossing of claim 18 wherein each of said cavities comprises an upper cavity portion having inner and outer ends, an intermediate cavity portion extending downwardly from said outer end of said upper cavity portion, and a lower cavity portion, having inner and outer ends, extending from the lower end of said intermediate cavity portion towards said inner side of the respective seal.

21.

15 The railroad grade crossing of claim 20 wherein said retainers are generally channel-shaped.

22.

20 The railroad grade crossing of claim 21 wherein each of said retainers includes an upper flange which is received by said upper cavity portion, a web which is received by said intermediate cavity portion, and a lower flange which is received by said lower cavity portion.

23.

1

The railroad grade crossing of claim 22 wherein said nuts are secured to said webs of said retainers.

24.

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The railroad grade crossing of claim 23 wherein said webs have inner and outer sides and wherein said nuts are welded to said inner side of said webs.

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